IN THE CLAIMS:

1. (Currently Amended) A method for determining the residual travel duration of a submarine, the method comprising:

providing a submarine with a pressure hull and an electric battery inside the pressure hull;

firstly, for at least one certain travel situation of the submarine, carrying out a reference journey through water, with which the power consumption of the submarine is detected, and stored as a situation-dependent consumption profile; and

later, for the same travel situation of the submarine, predicting the residual travel duration or a residual capacity of a battery after a predefined travel duration on the basis of the stored consumption profile and the current battery data.

2. (Currently Amended) A method according to claim 1, wherein ~~with for several predefined travel situations~~ reference journeys are carried out for several predefined travel situations with which in each case the power consumption of the submarine is detected and is stored as a situation-dependent consumption profile specific to the respective travel situation.

3. (Currently Amended) A method according to claim 1, wherein ~~at~~ during the reference journey in a travel situation an average value of the recorded power consumption is formed over a measurement interval.

4. (Currently Amended) A method according to claim 1, further comprising selecting a previously stored matching consumption profile by ~~the~~ an operator for the computation of the residual travel duration or of the residual capacity of the battery to be carried out.

5. (Original) A method according to claim 1, wherein during a reference journey the speed of the submarine is kept substantially constant and the power consumption which is detected is stored as a situation-dependant and speed-dependent consumption profile.

6. (Original) A method according to claim 1, wherein for a predefined travel situation a consumption profile which is not determined by a reference journey is interpolated from at least two other consumption profiles determined by a reference journey.

7. (Currently Amended) A method according to claim 1, further comprising detecting the fuel reserve of at least ~~of~~ one charging unit and taking the fuel supply into account on computing the residual travel duration or the residual capacity.

8. (Original) A method according to claim 1, further comprising detecting the fuel and oxidant reserve of a fuel cell installation of the submarine and taking the fuel and oxidant reserve of a fuel cell installation into account on computation of the residual travel duration or the residual capacity.

9. (Original) A method according to claim 1, wherein the power consumption of a propeller motor and remaining power consumption units of the submarine are detected together at one point of measurement.

10. (Original) A method according to claim 1, wherein the power consumption of a propeller motor and remaining power consumption units of the submarine are detected separately from one another at at least two different points of measurement.

11. (Currently Amended) A device for determining the residual travel duration of a submarine, the device comprising: a computer; a display; input means; and a detection unit for detecting the power consumption of the submarine, said computer, said display, said input means and said detection unit being arranged inside a pressure hull of said submarine, said computer comprising a profile production module for producing at least one situation-dependent consumption profile with at least one certain travel situation on the basis of data detected from the detection unit, a memory module for storing the produced consumption profile and a computation module for computing the residual travel duration in a certain travel situation on the basis of a stored consumption profile for this travel situation, and current battery data.

12. (Original) A device according to claim 11, further comprising an interface to a battery monitoring means for transmitting current battery data to the computer.

13. (Original) A device according to claim 11, further comprising an interface to a travel measurement means for transmitting current travel data to the computer.

14. (Original) A device according to claim 11, further comprising an interface to a submarine installation automation for transmitting necessary data to the computer.

15. (Currently Amended) A device according to claim 11, wherein at least one of the computer, the display, the ~~and the~~ input means ~~and/or~~ and the detection unit are integral components of an automation system or a battery monitoring means.

16. (Original) A device according to claim 11, wherein the computer, the input means and the detection unit are implemented with a software module in an automation system or a battery monitoring means.

17. (New) A method for determining an energy consumption of a vehicle, the method comprising:

performing a plurality of reference journeys with the vehicle, each reference journey having a different travel situation;

separately measuring energy consumption of the vehicle during each of the reference journeys;

independently storing values of the energy consumption during each of the reference

journeys as situation-dependent consumption profiles;

providing a predefined journey with a plurality of possible travel situations;

comparing each of the possible travel situations with a matching one of the situation dependent consumption profiles to determine an energy consumption of each of the possible travel situations.

18. (New) A method in accordance with claim 17, further comprising:

determining the energy available for the predefined journey;

comparing the energy consumption of each of the possible travel situations with the energy available;

determining which of the possible travel situations are possible with the energy available.

19. (New) A method for determining the residual travel duration of a vehicle, the method comprising:

firstly, for at least one certain travel situation of the vehicle, carrying out a reference journey, during the reference journey the speed of the vehicle is kept substantially constant and the power consumption is detected and stored as a situation-dependant and speed-dependent consumption profile; and

later, for the same travel situation of the vehicle, predicting the residual travel duration or a residual capacity of a battery after a predefined travel duration on the basis of the stored consumption profile and the current battery data.

20. (New) A method for determining the residual travel duration of a vehicle, the method comprising:

firstly, for at least one certain travel situation of the vehicle, carrying out a reference journey, with which the power consumption of the vehicle is detected, and stored as a situation-dependent consumption profile; and

later, for the same travel situation of the vehicle, predicting the residual travel duration or a residual capacity of a battery after a predefined travel duration on the basis of the stored consumption profile and the current battery data, a predefined travel situation with a consumption profile which is not determined by a reference journey is interpolated from at least two other consumption profiles determined by a reference journey.